County of Los Angeles
Department of Health Services
Public Health

THE PUBLIC'S HEALTH

Newsletter for Medical Professionals in Los Angeles County

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Sexual Assault Awareness Month

What physicians need to know

Sexual assault is of major public health importance. It is the most underreported of all violent crimes. It is estimated that 61% of sexual assaults go unreported. Underreporting is associated with a wide range of conditions such as fear, shame, guilt, embarrassment, and distrust of the assault victim toward others.

Epidemiology

According to the U.S. Department of Justice, National Crime Victimization Survey, approximately 500,000 women and 49,000 men are sexually assaulted every year. California Penal Code Sections 261 and 243.4 define "sexual assault" as "any involuntary sexual act in which a person is threatened, coerced, or forced to comply against her/his will."

It is estimated that one in five women is sexually assaulted by the time she is twenty-one years of age. Sixty one percent of female sexual assault victims are under 18 years of age and 18% of female sexual assault victims are 60 years of age and older. Among adult males, one in 33 is sexually assaulted each year according to the National Violence Against Women Survey.

The societal cost of sexual assault per patient is $86,464, according to the U.S. National Institute of Justice with the annual victim cost of sexual assault (excluding child sexual abuse) totaling $127 billion.

In 2002, of the 906,000 child victims of maltreatment in the U.S., 10% were confirmed by child protective services to have been sexually assaulted. The California Department of Justice reports an average of 815 felony arrests of forcible rape per year in Los Angeles County.

Signs, Symptoms and Consequences of Sexual Assault

Acute signs of physical injuries may include generalized cuts and bruises as well as tears of the vagina and rectum. While physical signs are clearer to identify, psychological or emotional response to sexual assault may not be as easy to recognize. Reactions may range from social withdrawal to extreme behaviors such as excessive talkativeness, fear, anger, crying, or rage. While some victims may not show signs immediately following the assault, as time passes, chronic conditions may occur.

Research suggests that victims of sexual assault are at an increased risk of acquiring sexually transmitted diseases, engaging in high-risk sexual behaviors (multiple sex partners, unprotected sex, early sexual initiation, trading sex for food and money) and abusing harmful substances (tobacco, alcohol, and other drugs). They are also at risk for unintentional pregnancies (an estimated 32,000 rape-resulted pregnancies each year) and being sexually and physically abused later in life.

Physical Consequences

Chronic physical consequences of sexual assault include the development of premenstrual syndrome, gastrointestinal disorders, chronic pelvic pain, back pain, facial pain, gynecological and pregnancy complications, migraines, and general disability.

Psychological Consequences

Acute psychological consequences of sexual assault include distrust in others, denial, confusion, anxiety, fear, post-traumatic stress disorder (PTSD) and withdrawal. Chronic psychological consequences include depression, PTSD, alienation, attempted or completed suicide and eating disorders.

Social Consequences

Social consequences include poor relationship outcomes with family, friends, and intimate partners and less likelihood of marriage. Further, sexual assault is a common preexisting factor for the development of phobias, dissociative identity disorder, and borderline personality disorder (BPD). Magnetic resonance imaging (MRI) studies confirm that women who have suffered sexual abuse during childhood exhibit lower hippocampal (Figure 1) and amygdala volumes. These cerebral alterations predispose victims to develop PTSD, BPD, and dissociative amnesia (Figure 2).

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Sexual assault is a common preexisting factor for the development of phobias, dissociative identity disorder, and borderline personality disorder (BPD), in adult victims reporting sexual abuse during their childhood.

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STD Awareness Month

April is Sexually Transmitted Disease (STD) Awareness Month – an observance designed to increase awareness about STDs, including transmission, prevention, and treatment.

CDC estimates that 19 million new STD infections occur annually. STDs continue to pose a significant health threat county-wide as well, particularly among youth. Provisional data indicate that 39,981 cases of chlamydia, the most common reportable STD, were reported to the STD Program in 2005, for a rate of 423.3 per 100,000 population; 62% of those cases were in persons 15-24 years[1].

STD infections are preventable, and most can be easily treated and/or cured. However, they often go undetected, and lack of treatment can lead to significant health consequences.

Despite these facts, many young people are not adequately screened.

References

1 Los Angeles County Department of Health Services, Sexually Transmitted Disease Program. 2005 STD Provisional STD Surveillance Summary, 2006.

Kim Harrison, MPH CHES
Health Educator
STD Program

Visit: http://www.lapublichealth.org/std for educational materials suitable for distribution, additional data regarding rates of chlamydia and other STDs and contact information for county STD clinics.

The Need to Report Histological Evidence of TB

BACKGROUND:

Did you know that health care professionals must report histological evidence of TB? Failure to do so can result in delayed diagnosis of disease, untimely initiation of treatment and negative outcomes, as illustrated in the following case:

In February 2006, a patient presented to a local clinic with complaints of cough, fever, night sweats, weight loss and burning on urination. In her history, the patient stated based on a right lymph node biopsy she had been diagnosed with "TB" in 2000. She further stated that she had been treated with Isoniazid (INH) for a total of nine months. She also reported she had undergone a biopsy of the mass in October 2000 but, had failed to keep follow-up appointments. Upon examination, the patient was found to have a left neck mass. Her chest radiograph showed patchy areas of consolidation bilaterally, right greater than left and the right apex showed a large area of consolidation. The cardiomediastinal silhouette was normal. The physician ordered three sputa for acid fast bacilli (AFB) which came back positive (1+, 2+, and 3+). Upon further investigation, the physician learned that the pathology report for this specimen, taken in October 2005, showed caseating granulomas and that special stains for AFB were positive.

Because the physician at the time did not receive these results, which are consistent with a diagnosis of tuberculosis disease, the patient was not reported to the public health department and treatment was delayed.

Unfortunately, this is not an isolated incident.

THE LAW:

Title 17, California Code of Regulations, Section 2505 states the following : "To assist the local health officer, the laboratory director, or the laboratory director's designee, of a clinical laboratory, an approved public health laboratory or a veterinary laboratory in which a laboratory examination of any specimen derived from the human body (or from an animal, in the case of rabies or plague testing) yields microscopical, cultural, immunological, serological, or other evidence suggestive of those diseases listed in subsection (e)(2)[of the CCR], shall report such findings to the health officer of the local health jurisdiction where the health care provider who first submitted the specimen is located." It further states: "For those diseases listed in subsection (e)(2)[of the CCR], the report of such findings shall be made within one working day from the time that the laboratory notifies the health care provider or other person authorized to receive the report [1]." This includes evidence suggestive of tuberculosis disease found from microscopic and histologic exam of tissue.

PROCEDURE:

In this county, the TB Controller is the Health Officer's designee for receipt of such reports. Reports are to be made in writing and are to include the date the specimen was obtained, the patient identification number, the specimen accession number or other unique specimen identifier, the laboratory findings for the test performed, the date that any positive laboratory findings were identified, the name, gender, address, telephone number (if known) and age or date of birth of the person from whom the specimen was obtained, and the name, address and telephone number of the health care provider for whom such examination or test was performed. A legible copy of a laboratory report containing all of the above information will satisfy the purpose of this regulation. [2]

After receipt of such reports, the Surveillance Nursing Unit at TB Control will contact the physician to confirm that the clinician is aware of the report and to obtain the plan of care for the patient. The Surveillance Nursing Unit at TB Control also ensures public health follow-up for the patient and their contacts as needed, and will offer medical consultation as needed.

Had Public Health been notified of the abnormal pathology findings in October 2005, it is possible this patient would have been found and brought under care before she developed infectious TB disease.

Extra pulmonary tuberculosis (TB) accounts for approximately 20 % of cases reported in the County each year. [3] Extra pulmonary TB can be difficult to confirm because the sites are not easily sampled without using invasive techniques, and even when sampled, culture results are often negative because a small number of organisms can cause significant disease. [4] In these cases, information obtained from histological exam can assist the clinician in making a diagnosis of TB disease. Granulomas, caseating granulomas, and caseating necrosis are histologic findings which are compatible with TB disease. Special stains for AFB may be positive.

Clinicians can assist pathologists by providing pertinent clinical information on the test requisition to ensure that appropriate tests are performed. In addition, clinicians suspecting tuberculosis should take adequate samples to allow for samples to be sent for mycobacterial culture as well as histologic examination.

Annette Nitta, M.D.
Director
TB Control Program

References

1. California Code of Regulations Chapter 4, Subchapter 1 article 1 § 2505 (a)
2. California Code of Regulations Chapter 4, Subchapter 1 article 1 § 2505 (c)
3. LA County TB Control
4. Am J Respir Crit Care Med Vol 161. pp1376-1395, 2000

Animal Rabies in Los Angeles County

Rabies was first confirmed in the city of Los Angeles, in 1898, in a dog. The next year, a Pasadena man, bitten by his cocker spaniel, became the county's first resident to die of rabies. Prior to 1900, the western states were practically free of rabies.

Modern day prophylaxis has proven nearly 100% successful. In the U.S., human fatalities associated with rabies occur in people who fail to seek medical assistance, usually because they were unaware of their exposure. For example, bat contact may go unnoticed or the contact is viewed as insignificant because bats are small.

County averages about one rabid bat a month

Rabies is endemic in our insectivorous bats. Of the sick and dying bats tested, about 10% are positive. Rabid bats are distributed throughout the county (see map). In 2005, there were 13 rabid animals detected in the county. Most of the bats were from various locations. However, two rabid bats were found at a summer camp in Topanga and two rabid bats were found on a school grounds in Baldwin Park.

The last two confirmed rabid domestic animals were imported through Los Angeles International Airport; in 1987, a cat entered from Mexico and a puppy entered from Thailand in 2004.

Recently, there has been a large increase in puppies being smuggled in from Mexico, Korea, and other countries where rabies is endemic, increasing the risk of imported dog rabies.

During the 21st century, bats have accounted for the majority of human rabies cases in the U.S. and California (see table 1).

Map showing location of laboratory confirmed bat rabies during the 21st century –

Due to the passive nature of rabies surveillance most cases go undetected.

During 2004, there were 6,844 cases of animal rabies in the U.S. California had 184 rabid animals that year with bats accounting for over 80% of the rabies.

In the county, there are local and state laws that pertain to rabies control. The California Department of Health Services has declared the county a "rabies area". In "rabies areas," all animal bites are reportable. The county Health and Safety code requires physicians to report animal bites from an animal of a species subject to rabies. It can affect any mammal.

REPORT Animal Bites
Report online:
http://lapublichealth.org/vet/biteintro.htm
Report by phone: 877-747-2243 or 562-401-7088
Report by fax: 562-401-7112

References

CDC: http://www.cdc.gov/ncidod/dvrd/rabies/
Krebs JW, Mandel EJ, Swerdlow LD, Rupprecht CE. Rabies surveillance in the United States during 2004. JAVMA, Vol 227, No. 12, pp. 1912-25. December 15, 2005.

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Table 1

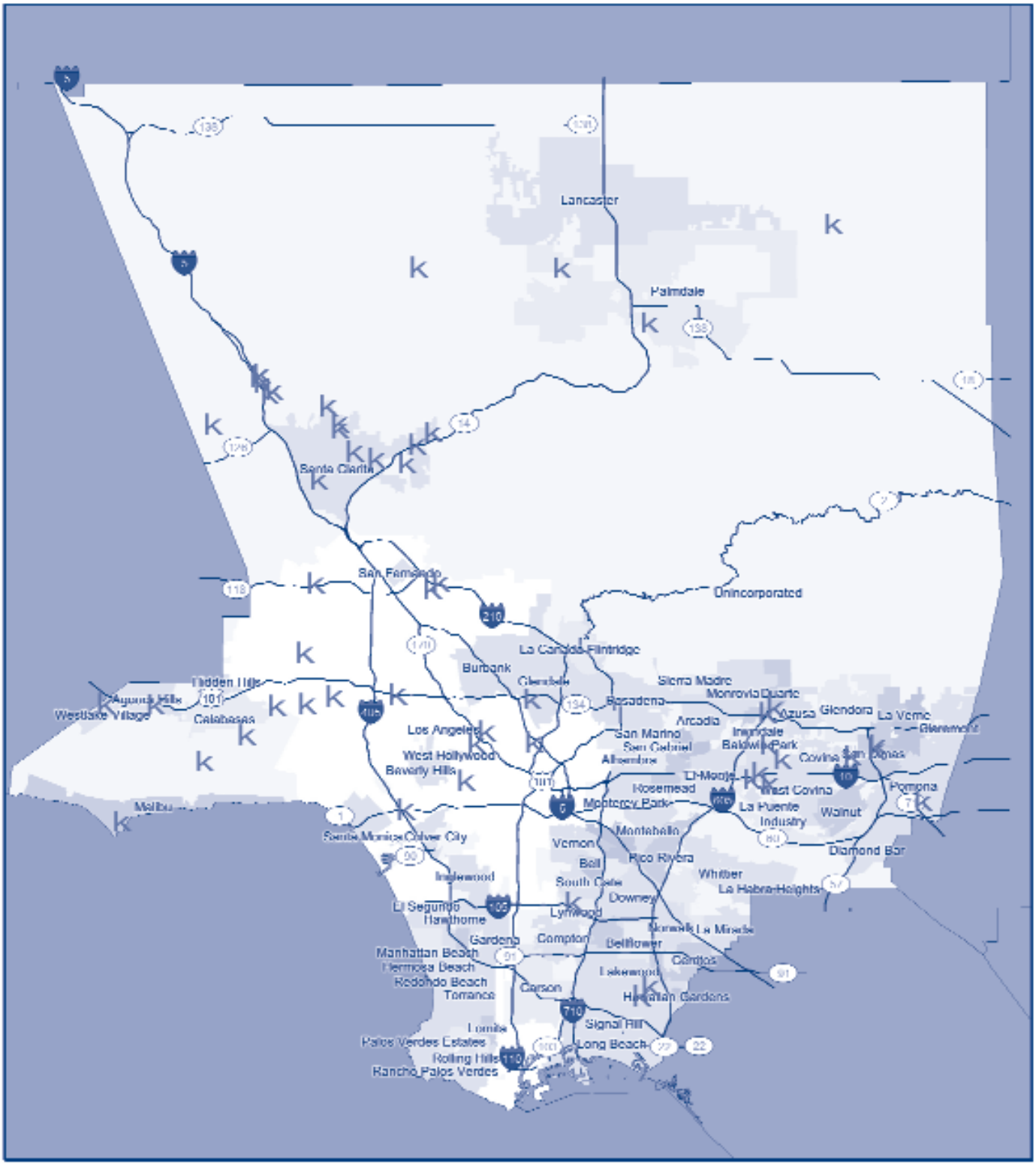
Human Rabies California in the 21st Century

Date of death	Exposure history	Rabies virus variant
2000	Unknown	Bat
2001	Unknown	Dog
2002	Unknown-Philippines	Bat
2003	Bite	Bat
2004*	Unknown	Dog

* The 22-year-old person, was born in El Salvador, but had been in the county for 15 months. Exposure was assumed to be in El Salvador where canine rabies is endemic.

Rabid Bats in Los Angeles County 2000 - 2005

k = Location of Rabid Bat



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Public Health - Communicable Disease Control & Prevention
Veterinary Public Health and Rabies Control Program

Sexual Assault...from page 1

Perpetrators

Among female victims, one hundred percent of cases are by male perpetrators. Among male related-victims, 70% are perpetrated by other males. It is also estimated that in nearly 80% of the rapes cases, among males or females, the victims knows the perpetrator. In reports of all sexual assault cases, 64% of female victims and 16% of male victims have reported being raped by a current or former spouse, a cohabitating partner, a boyfriend/girlfriend, or a date.

Vulnerability and Risk Factors

Research has identified certain risk factors that place individuals at increased risk for sexual assault victimization and those that place individuals at increased risk for sexual assault. Vulnerability factors to victimization include prior history of sexual violence, high-risk sexual behavior, drug or alcohol use, as well as gender, young age, ethnicity/culture and poverty. Risk factors for perpetration are included in figure three and are divided into individual, relationship, community and societal. It is important to note that vulnerability and risk factors are not causal of sexual assault but rather contributing factors.

Role of Physicians

As stated, many sexual assault cases go unreported. Very few cases are reported to law enforcement and very few victims are hospitalized. However family physicians, emergency room physicians, internists, pediatricians, and obstetrician/gynecologists (OB/GYN's) can and do have direct contact with these victims during routine check-ups. It is important therefore, that the physician takes the opportunity to screen for potential victims during routine examinations.

Research shows that these victims are not likely to disclose this information without being asked. Although most OB/GYN's do not routinely inquire about sexual trauma history in their patients, research suggests that the majority of women indicate they would welcome this question. Additionally, the American Medical Association, American Academy of Pediatrics, and the American College of Obstetricians and Gynecologists all recommend physicians remain alert for signs and symptoms of any form of abuse during routine examinations of their patients.

If a patient discloses that they have been sexually assaulted, the following procedures will help the examination to proceed with as little emotional distress as possible:

- Greeting your patient in your office while she/he is fully dressed (not the examination room)
- Minimizing authoritative power between you and your patient
- Giving the patient as much control as possible
- Providing health education materials
- Treating the patient as an expert about him/herself
- Asking him/her what will help to reduce any stress during the exam
- Asking her/him to predict what they will expect to be most difficult in the exam
- Taking a break during the exam if necessary
- Providing the patient with as many choices as possible
- Engaging in dialogue throughout the exam
- Explaining everything you will do during the exam, in advance, as well as while you are performing the procedure
- Listening carefully to any concerns your patient may have
- Checking in regularly throughout the exam about the patient's anxiety levels
- Reminding the patient why you are performing this exam
- Planning and allowing extra time.
- Being prepared and willing to reschedule the exam if necessary
- Talking with the patient about their job or family to help reduce anxiety
- Consider using relaxation techniques or involving a mental-health provider in planning care

Mandated Reporting

California Penal Code Section 11160 mandates that a physician call the local law enforcement agency by telephone immediately or as quickly as possible, when a patient comes for medical care due to a sexual assault. The physician should be familiar with their own hospital, clinic, or HMO policies and procedures regarding the use of specific reporting forms. These forms must be completed and mailed to a law enforcement agency within 48-hours. The physician is recommended to document all injuries of the victim by using a body map or photographs if possible. The California Medical Training Center (CMTC), established in 2002, develops instructional materials and conducts training in clinical forensic medicine techniques for physicians and other health-care professions, social workers, law enforcement, victim advocates, and criminal prosecutors. Specifically for sexual assault, the CMTC has the following downloadable forensic examinations forms from the Governor's Office of Emergency Services [http://www.cmtc.tv/forensic.asp]:

OES 923 Adult/Adolescent Medical/Evidentiary Sexual Assault Examination
http://www.cmtc.tv/pdf/oes_forms/oes_923_form.pdf
OES 925 Nonacute (>72 Hours) Nonacute (>72 hrs) Child/Adolescent Medical/Evidentiary Sexual Assault Examination
http://www.cmtc.tv/pdf/oes_forms/oes_925_form.pdf

OES 950 Sexual Assault Medical/Evidentiary Suspect Exam
http://www.cmtc.tv/pdf/oes_forms/oes_950_Form.pdf

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Learn More

Physicians can learn more on the evaluation and management of sexually assaulted patients by consulting "Strategies for the treatment and prevention of sexual assault", by the American Medical Association, at [http://www.ama-assn.org/ama1/pub/upload/mm/386/sexualassault.pdf]. The document provides a review on taking a medical history, inquiring about sexual assault, clinical support resources available and common elements of a Rape Kit Protocol.

Primary care physicians, OB/GYN's, pediatricians and internists can obtain up to 1.5 AMA PRA Category 1 continuing physician education credits by completing an online a study course through Medscape, which is accredited by the Accreditation Council for Continuing Medical Education. The goal of this activity is to provide guidelines and improve physician screening for both physical and sexual violence against women. Current activity is valid for credit through August 9, 2006 and can be accessed at the following link [http://www.medscape.com/viewprogram/4397?src=search].

The Injury and Violence Prevention Program website includes downloadable sexual assault-related materials, a list of service organizations located throughout Los Angeles County, and the National Sexual Assault Hotline number (1.800.656.HOPE). Materials that can be downloaded for patients are available at [http://lapublichealth.org/ivpp/injury_topics/IPV/dvhome.htm].

During the month of April, various states, territorial rape prevention education programs and the Centers for Disease Control and Prevention (CDC) highlight activities that increase awareness about sexual violence. Materials, including posters, postcards, pins, and stickers and are available from the CDC as well as the National Sexual Violence Resource Center . Contact information: Address is 123 North Enola Drive, Enola, Pennsylvania 17025. The telephone number is 877-739-3895, and the web site can be accessed at http://www.nsvrc.org. The CDC web link is http://www.cdc.gov/injury.

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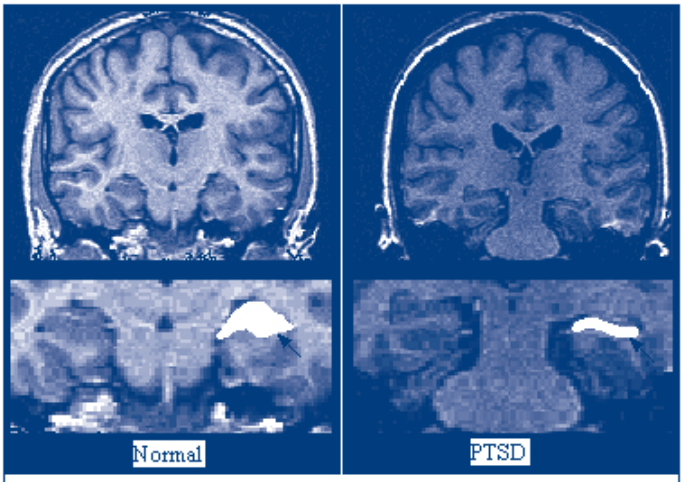

Figure 1: Hippocampus volume illustrated from MRI. The PTSD illustration shows a clear reduction in hippocampus volume compared to the normal illustration.

Insult	Brain Region/Structure	Outcome[1]
Diminished growth	Left hemisphere	Depression
Reduced volume	limbic system (i.e. Amygdala)	• Panic disorder • PTSD
	• Hippocampus • Limbic System-hyperfunction (i.e. Amygdala)	• Dissociative disorders • Borderline personality disorder • Memory impairments • Fear reaction deficits
Impairment in the connection between hemispheres		Attention Deficit Hyperactivity Disorder

Figure 2: Neurological Insults due to Sexual Assault among young childhood early brain development

Individual
• Alcohol and drug use* • Coercive sexual fantasies • Impulsive and antisocial tendencies • Preference for impersonal sex • Hostility towards women • Hypermasculinity • Childhood history of sexual and physical abuse* • Witnessed family violence as a child
Relationship
• Association with sexually aggressive and delinquent peers • Family environment characterized by physical violence and few resources • Strong patriarchal relationship or familial environment • Emotionally unsupportive familial environment
Community
• Lack of employment opportunities • Lack of institutional support from police and judicial system • General tolerance of sexual assault within the community • Settings that support sexual violence • Weak community sanctions against sexual violence perpetrators
Societal
• Poverty • Societal norms that support sexual violence • Societal norms that support male superiority and sexual entitlement • Societal norms that maintain women's inferiority and sexual submissiveness • Weak laws and policies related to gender equity • High tolerance levels of crime and other forms of violence

Figure 3: Risk factors for perpetration (Adopted from the "Sexual Violence: Fact Sheet", National Center for Injury Prevention and Control)

This Issue . . .

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Selected Reportable Diseases (Cases)* - August - October 2005

Disease	THIS PERIOD Nov. 2005	SAME PERIOD LAST YEAR Nov. 2004	YEAR TO DATE Nov. 2005	YEAR TO DATE Nov. 2004	YEAR END TOTALS 2004	2003	2002
AIDS*	135	137	1,422	2,104	2,335	2,532	1,719
Amebiasis	14	9	113	91	98	121	102
Campylobacteriosis	68	59	706	866	915	1,100	1,067
Chlamydial Infections	3,219	3,124	37,098	35,542	38,464	36,555	35,688
Encephalitis	1	15	61	111	137	38	61
Gonorrhea	924	802	9,976	8,912	9,696	8,008	7,800
Hepatitis Type A	125	21	323	271	319	376	438
Hepatitis Type B, Acute	8	3	54	65	71	56	29
Hepatitis Type C, Acute	1	0	3	5	5	0	3
Measles	0	0	0	2	1	0	0
Meningitis, viral/aseptic	47	46	773	806	790	899	466
Meningococcal Infections	4	3	23	15	28	32	46
Mumps	0	0	10	2	2	10	16
Non-gonococcal Urethritis (NGU)	33	95	949	1,353	1,470	1,393	1,393
Pertussis	22	16	297	157	141	130	170
Rubella	0	0	0	0	0	0	0
Salmonellosis	79	102	943	978	1,185	995	956
Shigellosis	56	50	661	512	550	669	974
Syphilis, primary & secondary	32	35	518	413	459	442	364
Syphilis, early latent (<1 yr.)	27	33	472	346	381	365	353
Tuberculosis	82	87	701	706	856	949	1,025
Typhoid fever, Acute	0	0	12	13	13	16	33

* Case totals are provisional and may vary following periodic updates of the database.